

25 June 1998



Maintenance

**MAINTENANCE ON EXPLOSIVE LOADED
AIRCRAFT AND AFTO FORM 781 ENTRIES
FOR INTERNAL MUNITIONS**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements Air Force Policy Directive (AFPD) 21-2, *Nuclear and Nonnuclear Munitions*. It establishes procedures for the performance of general and specific maintenance on explosive loaded aircraft in accordance with Technical Order (T.O.) 11A-1-33, *Handling and Maintenance of Explosives Loaded Aircraft*, and T.O. 00-20-5, *Aircraft, Drone, Aircrew Training Devices, Engines, and Air-Launched Missile Inspections, Flight Reports and Supporting Maintenance Documents*. These procedures apply to all personnel assigned to the 442d Logistics and Operations Groups. Supervisors, superintendents, and flight chiefs are responsible for ensuring compliance with this instruction.

1. Emergency Procedures. In the event of an emergency, evacuate personnel, cease all operations and notify the Maintenance Control Function (MCF).

2. Safety Precautions. Before performing maintenance on an explosive loaded aircraft, ensure the combat aircraft has been safed in accordance with the T.O. 1A-10A-2-1-1, *General Equipment Manual*, T.O. 1A-10A-33-1-2, *Non-Nuclear Munitions Loading Procedures* and T.O. 11A-1-33, *Handling and Maintenance of Explosives-Loaded Aircraft*. If a questionable condition exists, seek qualified guidance before continuing.

3. Explosives and Personnel Limits. Explosives are limited to the amounts allowed in the specific combat aircraft parking areas on Whiteman Air Force Base. Personnel limits do not directly apply as outlined in this instruction, however, personnel should always be kept to the minimum required to perform the job whenever dealing with explosives.

4. Location of Operations. All combat aircraft parking areas on Whiteman Air Force Base, e.g., parking ramp, aircraft maintenance hangar, end-of-runway, etc.

5. Responsibilities:

5.1. Workcenter supervisors. Supervisors will ensure that all personnel subject to work on explosive loaded aircraft are familiar with this publication and attend the required annual training. (Maintenance on Explosive Loaded Aircraft or Weapons Academic, as applicable.) Supervisors must rigidly enforce all of the requirements of the instruction and the applicable technical orders.

5.2. Personnel:

5.2.1. Remove all rings, watches, and jewelry.

5.2.2. Be aware of all of the safety procedures contained in this instruction and the applicable technical orders.

5.2.3. If in doubt of the status of any munition, seek qualified guidance before continuing any maintenance. **WARNING:** Maintenance on any explosive loaded aircraft that will increase the probability of release, jettison, arming, firing or launching of any munition (live or inert) or fuel tank is prohibited. This includes, but is not limited to applying electrical or hydraulic power to release/firing circuits that cannot be electrically and mechanically safed. If this requirement cannot be met, the munition will be unloaded.

5.2.4. Check the AFTO Form 781H, **Aerospace Vehicle Flight Status and Maintenance**, and AFTO Form 781A, **Maintenance Discrepancy and Work Document** for the status of internal munitions (paragraph 8 and 9).

5.2.5. Any time that personnel performing maintenance on an explosive loaded aircraft feel that their activities might compromise safety, work will be stopped until qualified guidance is received.

5.3. Weapons personnel will:

5.3.1. Become familiar with the safety requirements in all applicable regulations and technical orders.

5.3.2. Ensure the aircraft forms correctly reflect the status of internal munitions (paragraph 7 and 8).

5.3.3. Ensure all loaded station and gun safety pins and devices are installed prior to maintenance being performed on explosive loaded aircraft.

5.3.4. Ensure all cockpit armament switches are off, safe or normal prior to any maintenance being performed on explosive loaded aircraft.

5.3.5. Ensure no maintenance is performed on the aircraft that will interfere with loading operations.

6. Hangaring of Explosive Loaded Aircraft. In accordance with T.O. 11A-1-33, the commander may authorize the hangaring of explosive loaded aircraft for shelter purposes when mission essential. When this occurs, all aircraft will be safed in accordance with T.O. 1A-10A-33-1-2 procedures and no maintenance will be performed on that aircraft. Otherwise, the aircraft will be safed or unloaded in accordance with **Attachment 2, Table 1** of this instruction and T.O.11A-1-33.

7. Sealing of Empty MAU-40/50 Cartridge Liners. A lead seal and safety wire installed on cartridge liners and imprinted with an identifying mark indicates the breech is empty. If the seal or wire is broken, the certification of empty breeches is void.

7.1. When a seal is broken or missing, the cartridge liners must be removed to verify that cartridges are not installed.

7.2. Coded dies for lead seal presses will be assigned to each weapons load and maintenance crew and will be secured when not in use.

7.3. The seal must automatically break when a cartridge liner is removed.

8. AFTO Form 781A, Maintenance Discrepancy and Work Document:

8.1. 30MM ammunition, ALE-40 chaff/flare and impulse cartridges will be annotated on page 1A of the 781A, when loaded.

8.2. Ensure the weapons general support year-event ID number is correct.

8.3. Mark the "NO" block under the "LOADED" column for each item that is not installed on the aircraft.

8.4. Mark the "YES" block under the "LOADED" column for each item that is installed on the aircraft. For each item marked "YES", complete the entry by identifying the quantity and location for each item.

8.5. For 30MM ammunition and ALE-40 chaff/flare only, make the corresponding entry in the 781H.

9. AFTO Form 781H, Aerospace Vehicle Flight Status and Maintenance:

9.1. AFTO Form 781H, Block 11 will be used to document whether the aircraft is loaded with 30MM ammunition and ALE-40 chaff/flare. There will always be two open entries in block 11, one for ammunition and another one for chaff/flare.

9.2. Circle the "L" in red, in the first open block when ammunition is loaded. Reference the corresponding 781A, page 1A, entry by entering the page and item number in the lower half of the block (e.g., 1A-1). When the ammunition has been downloaded or expended place an "X" through the entire block. In the next open block, circle the "E" in red and make the corresponding reference to the 781A, page 1A entry. The same entries are made for chaff/flare.

NOTE: Do not treat 30MM ammunition as "expended" simply because the gun "fired out", and the rounds remaining indicator reads zero. The ammo can only be considered totally "expended" after cycling the brass completely through the system and visually verifying that there are no live rounds present.

9.3. When new items have been loaded, the new status will be annotated in the next open block.

9.4. The "N", in block 11, is only used when that particular system is removed.

9.5. Ensure the corresponding entry is on page 1a of the 781A's.

CHARLES E. STENNER, JR., Colonel, USAFR
Commander

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFPD 21-2--*Nuclear and Nonnuclear Munitions*

T.O. 00-20-5--*Aircraft, Drone, Aircrew Training Devices, Engines, and Air-Launched Missile Inspections, Flight Reports and Supporting Maintenance Documents*

T.O. 11A-1-33--*Handling and Maintenance of Explosives-Loaded Aircraft*

T.O. 1A-10A-2-1-1--*General Equipment Manual*

T.O. 1A-10A-33-1-2--*Non-Nuclear Munitions Loading Procedures*

Attachment 2

EXPLOSIVE LOADED AIRCRAFT MAINTENANCE LIMITATION TABLE**Table A2.1. Explosive Loaded Aircraft Maintenance Limitation**

EXPLOSIVE LOADED AIRCRAFT MAINTENANCE LIMITATION TABLE				
TYPE MAINTENANCE	UNLOAD ALL MUNITIONS	UNLOAD EXT MUNITIONS	SAFETY PINS/ DEVICES INSTALLED IN ALL MUNITIONS	REMARKS AND EXCEPTIONS
Pre/post/thruflight/ insp			X	
Servicing fuel/oil/oxygen/nitrogen			X	
Towing/taxi			X	Except high speed taxi/flight
Jacking entire aircraft		X		
Jacking one wheel			X	
Engine run			X	
Engine trim		X		
Compass swing		X		
Wash or paint		X		
Internal Fuel system maintenance	X			
Defuel		X		
Phase	X			
Functional check flight performed	X			30mm ammo may be left installed if manual reversion will not be performed
Minor maintenance to prevent abort			X	
Engine change		X		